



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/217,542	12/21/1998	JAMES MORRISON	8055	8206

26884 7590 12/01/2006
PAUL W. MARTIN
NCR CORPORATION, LAW DEPT.
1700 S. PATTERSON BLVD.
DAYTON, OH 45479-0001

EXAMINER

LASTRA, DANIEL

ART UNIT	PAPER NUMBER
----------	--------------

3622

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/217,542
Filing Date: December 21, 1998
Appellant(s): MORRISON, JAMES

MAILED

DEC 01 2006

GROUP 3600

Paul W. Martin
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 09/08/2006 appealing from the Office action
mailed 12/02/2005.

Art Unit: 3622

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,056,087	ADDY ET AL	05-2000
6,098,879	TERRANOVA	08-2000
4,630,110	COTTON ET AL	12-1986

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Addy (US 6,056,087) in view of Terranova (US 6,098,879) and further in view of Cotton (US 4,630,110).

As per claims 27 and 33, Addy teaches:

A method of operating a self-service checkout terminal of a retail store, comprising the steps of:

recording a number of merchandise items for purchase by a user by said self-service checkout terminal (see Addy column 1, lines 30-41). Addy teaches a system with a processing unit that monitors output signals generated by a scanner, a video system and a light curtain device in order to supervise and provide security monitoring of a given checkout procedure. In addition, if the light curtain device detects that the customer placed an item in the post-scan area but the video system did not detect motion associated with the customer attempting to scan the item, and the scanner did not read a product identification code associated with the item, it can be inferred with a high degree of confidence that the customer was intentionally operating the self-service

Art Unit: 3622

checkout terminal improperly. Since the customer appears to have made no attempt to scan the item prior to placing the item in the post-scan area, an entry is made in a log. A security officer may be paged to audit or otherwise investigate the customer's transaction if the log entry exceeds a threshold value (see Addy column 8, lines 10-45).;

Addy fails to teach:

receiving movement signals from a plurality of adjoining detection zones of a floor mat in a checkout floor area adjacent to said self-service checkout terminal in response to said detection zones reacting to a weight of said user as said user walks on said detection zones by said self-service checkout terminal;

tracking directional movements of said user from said movement signals by said self-service checkout terminal as said user walks about said checkout floor area in any direction while using said self-service checkout terminal; receiving a last movement signal as said user leaves said checkout floor area indicative of said user ceasing operation of said self-checkout terminal;

determining if a payment-tendered control signal was received by said self-service checkout terminal indicative of said user having tendered payment for said merchandise items prior to receipt of said last movement signal; and

if said payment-tendered control signal was not received by said self-service checkout terminal, determining a last direction of movement of said user prior to said user leaving said checkout floor area by said self-service checkout terminal, and operating a summoning device so as to summon retail personnel by said self-service checkout terminal if said last direction of movement was towards an exit of said store.

Art Unit: 3622

However, Terranova teaches a system that detects the movement of a customer using a self-service checkout terminal (see Terranova column 11, lines 1-21; column 1, lines 34-40) and alerts security personnel when it detects that said customer is attempting to walk-away from a checkout terminal before generation of a payment-tendered control signal (see Terranova column 34, lines 17-41). Cotton teaches of a floor sensitive mat that senses the direction a person is walking across the mat (see column 10, lines 45-61). The floor sensitive mat can determine if the person is walking out of the store or if the person is entering the store. From this information, the system triggers a signal to turn on surveillance equipment in a point of sale environment (see column 27, lines 35-67 – column 28, lines 1-67). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that the Addy et al system would summoned security personnel, when it detects that a customer walks pass a certain boundary in a checkout terminal using a movement detection floor mat, as taught by Cotton which would indicate that said customer is walking away from said checkout terminal before generation of a payment-tendered control signal, as taught by Terranova. This feature would prevent a customer using a self-service checkout terminal to leave the store without paying for the merchandise.

As per claims 28 and 34, Addy teaches:

The method of claim 1, but does not expressly teach wherein said summoning device comprises a status light above said self-service checkout terminal. However, Official Notice is taken that it is old and well known in the retail business to have flashing lights (i.e. flash red lights) in a store to indicate an emergency or urgent

Art Unit: 3622

situation. It would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Addy's self-service checkout terminal would include flashing lights that when activated would summon personnel to investigate the reason of said activation.

As per claims 29 and 35, Addy teaches:

The method of claim 1, wherein said summoning device comprises a paging system coupled to said self-service checkout terminal (see column 8, lines 40-45).

As per claims 30 and 36, Addy teaches:

The method of claim 1, but fails to teach further comprising tracking rates of directional movements and operating said summoning device after determining from a final rate that said user is exiting said checkout floor area in haste. However, Cotton teaches a floor sensitive mat that senses the direction a person is walking across said mat (see Cotton column 10, lines 45-61) and counts the number of times a state in said mat changes in response to a person walking across said mat (see Cotton column 27, line 50 – column 28, line 19). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that Addy would summoned security personnel, when it detects that a customer is exiting a checkout area based upon how fast said state changes in response to a person walking across said mat, as taught by Cotton. Addy would be motivated to determine if a person is leaving a store in a haste in order to summon personnel to investigate the reason of said haste.

As per claims 31 and 37, Addy teaches:

Art Unit: 3622

The method of claim 1, but fails to teach further comprising:

determining that said last direction of movement of said user prior to said user leaving said checkout floor area was towards a shopping area by said self-service checkout terminal; receiving a new movement signal as said user reenters said checkout floor area; and allowing said user to continue a retail transaction in response to receipt of said new movement signal. However, Terranova teaches a system that detects if a customer returns to a checkout area and allows the customer to continue a retail transaction in response to said detecting (see Terranova column 34, lines 16-42). Cotton teaches a floor sensitive mat that senses the direction of a person walking across the mat (see Cotton column 10, lines 45-61). The floor sensitive mat can determine if the person is walking out of the store or if the person is entering the store. From this information, the system triggers a signal to turn on surveillance equipment in a point of sale environment (see Cotton column 27, lines 35-67; column 28, lines 1-67). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that the Addy system would determine if the user is returning to the shopping area and is not leaving the store using the Cotton's movement detection floor mat, and would trigger or disable a signal accordingly, as taught by Terranova.

As per claims 32 and 38, Addy teaches:

The method of claim 1, further comprising: but fails to teach tracking directional movements of a cart of said user on said floor mat. However, Cotton teaches detecting the movement of a hand truck across a floor sensitive mat (see Cotton column 29, lines

Art Unit: 3622

1-10). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the application was made, to know that the Addy system would determine the movement of a hand shopping cart and would use said movement to determine if personnel should be summoned, as taught by Terranova.

(10) Response to Argument

1. The Appellant argues in pages 8 and 9 of his Brief that Cotton does not determine a customer's movement in any direction in adjoining detection zones in a floor area adjacent to a self-service checkout terminal because, according to the Appellant, Cotton teaches a series of disjointed floor mats that determine a customer movement in only two directions, in or out of a store. The Examiner answers that Appellant's specification recites that the "movement detection floor mat 22 may be divided into a number of detection zones 22a-22i. Movement into an out of each of the detection zones 22a-22i may be utilized to track movement of a customer within the checkout area 44 of the store. In particular, the movement detection floor mat 22 generates ordered output signals indicative of which detection zone 22a-22i is being stepped on by the customer operating the self service checkout terminal" (see Appellant's specification figure 2 and page 12, lines 9-13). Cotton teaches a movement detection floor mat (see Cotton figure 4) which is divided into a number of detection zones (i.e. Cotton figure 4, items 46 and 47), where movement into and out of each detection zone is determined when a person steps on each respective zone, which would triggers areas of said mat which would in turn detect distinct footfalls of a person walking across the mat. Thus, Cotton's floor mat can sense the direction in which a

Art Unit: 3622

person is walking across the mat (Cotton figure 4 zones 46 and 47). Furthermore, Cotton teaches that arrow 49 (see Cotton's figure 4) defines a travel direction, which is contemplated by the structure of the mat. It does not matter whether arrow 49 is considered to have a directional sense either up or down as shown in figure 4, but rather that arrow 49 defines an axis along which sections 46 and 47 are spaced apart and separated by area 48 (see Cotton col 11, lines 20-30). Therefore, contrary to Appellant's argument, Cotton's floor mat is not a series of disjointed floor mats, as Cotton teaches a floor mat divided into adjoining detection zones 46 and 47 separated by area 48 so that a distinction can be made between a person stepping on area 46 or on area 47 (see Cotton col 10, lines 25-30). Furthermore, Cotton's floor mat does not detect only two directions, as argued by the Appellant, because Cotton's floor mat generates output signals indicative of which detection zone 46 or 47 (see Cotton figure 4) is being stepped on by the customer in order to determine the direction (*i.e.* "any direction") where said customer is moving. Appellant's specification figure 2 shows that "movement in any direction" is determined by distinguishing the particular detection zone in the floor mat that a customer steps on which is what Cotton's floor mat does. Therefore, contrary to Appellant's argument, Cotton teaches a floor mat divided in adjoining detection zones that detect the movement of a person in "any direction" across said mat.

2. The Appellant's argues in page 9 of his Brief that the Office has not provided a motivation from within the references that would motivate one skilled in the art to supply the entrance floor mat of Cotton adjacent to a self-service checkout terminal, or to use

Art Unit: 3622

that floor mat to alert security personnel. The Examiner answers that Cotton teaches a system where alarm events are defined by the improper sequence of switch closures (see Cotton col 5, lines 65-67). For example, the user may program the intelligent controller so that a response to any opening of the cash drawer, which is not first preceded by operation of the amount tendered key of the cash register triggers an alarm event which is to be recorded for special attention (see Cotton col 6, lines 1-8). Cotton also teaches that, since an alarm event in the nature of a robbery is of particular concern in convenience stores, the ability to have a full screen display of the entire path between the cash register and the door greatly increases the probability that a visual image of a thief will be recorded in response to an alarm event (see Cotton col 10, lines 1-15). Furthermore, Cotton teaches a movement detection floor mat that can trigger an alarm event, which would turn on cameras to record the movement detected by said mat (see Cotton col 28, lines 45-55). Addy teaches using a video system in order to detect fraudulent behavior and, based upon said detection, summon retailer's personnel such as security personnel to audit or otherwise investigate the customer's transaction (see Addy col 11, lines 55-67; col 17, line 65 – col 18, line 5). Therefore, it would have been obvious to a person of ordinary skill in the art that Addy's self service terminal would place the Cotton's floor mat adjacent to said terminal in order to restrict the area in which to alert a security personnel.

3. The Appellant argues in page 9 of his Brief that there is no teaching in Terranova to apply the drive-off determining technique to a floor mat and that one skilled in the art would not be motivated to use the drive-off techniques of Terranova because Terranova

Art Unit: 3622

relies on equipment that must be carried by the customer. The Examiner answers that Terranova teaches that it is old and well known in the business art the idea of triggering an alarm and summon personnel when a person is walking out from a terminal without tendering payment (see Terranova col 34, lines 20-30). Therefore, adding Cotton's floor mat to the Addy system would allow Addy's self checkout terminal to detect if a person is walking away from the store (see Cotton col 27, lines 37-42) without first tendering payment in a check out terminal (see Cotton 6, lines 1-10) which would trigger an alarm that would turn on the video surveillance cameras (see Cotton col 6, lines 1-10) and would summon personnel to said check out terminal (see Addy col 17, lines 65-67). Therefore, contrary to Appellant's argument, Addy, Terranova and Cotton teach Appellant's claimed invention.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Daniel Lastra DL

Conferees:

Eric Stamber ES

Raquel Alvarez RA